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SB100 Joint Agency Report

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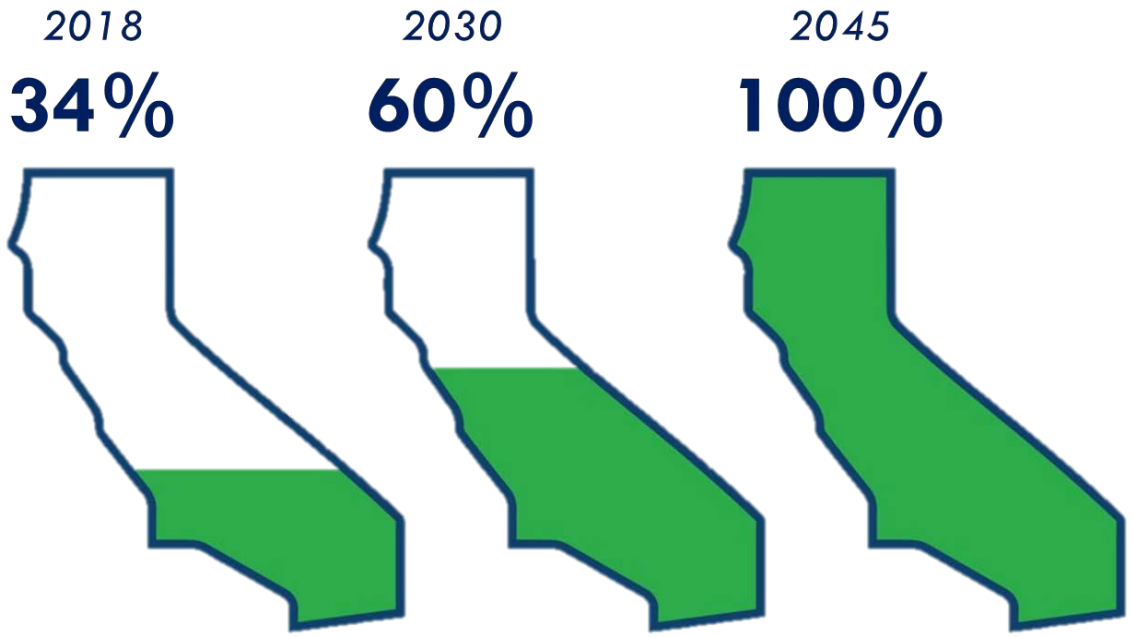
California Energy Commission
January 23, 2020

SB 100: RPS and Zero-Carbon Resources

PUC 454.53 (a)

It is the policy of the state that **eligible renewable energy resources and zero-carbon resources** supply 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045.



Joint Agency Report

In consultation with CA balancing authorities, through a public process, issue a joint agency report by January 1, 2021 and at least every four years after that includes:

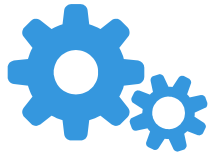
- **Technical review of the policy**
- **Potential benefits and impacts on system/local reliability**
- **Nature of anticipated financial cost and benefits to utilities**
- **Barriers and benefits of achieving the policy**
- **Alternative scenarios to achieve the policy**

Joint Agency Report Goals

Meet report statutory requirements

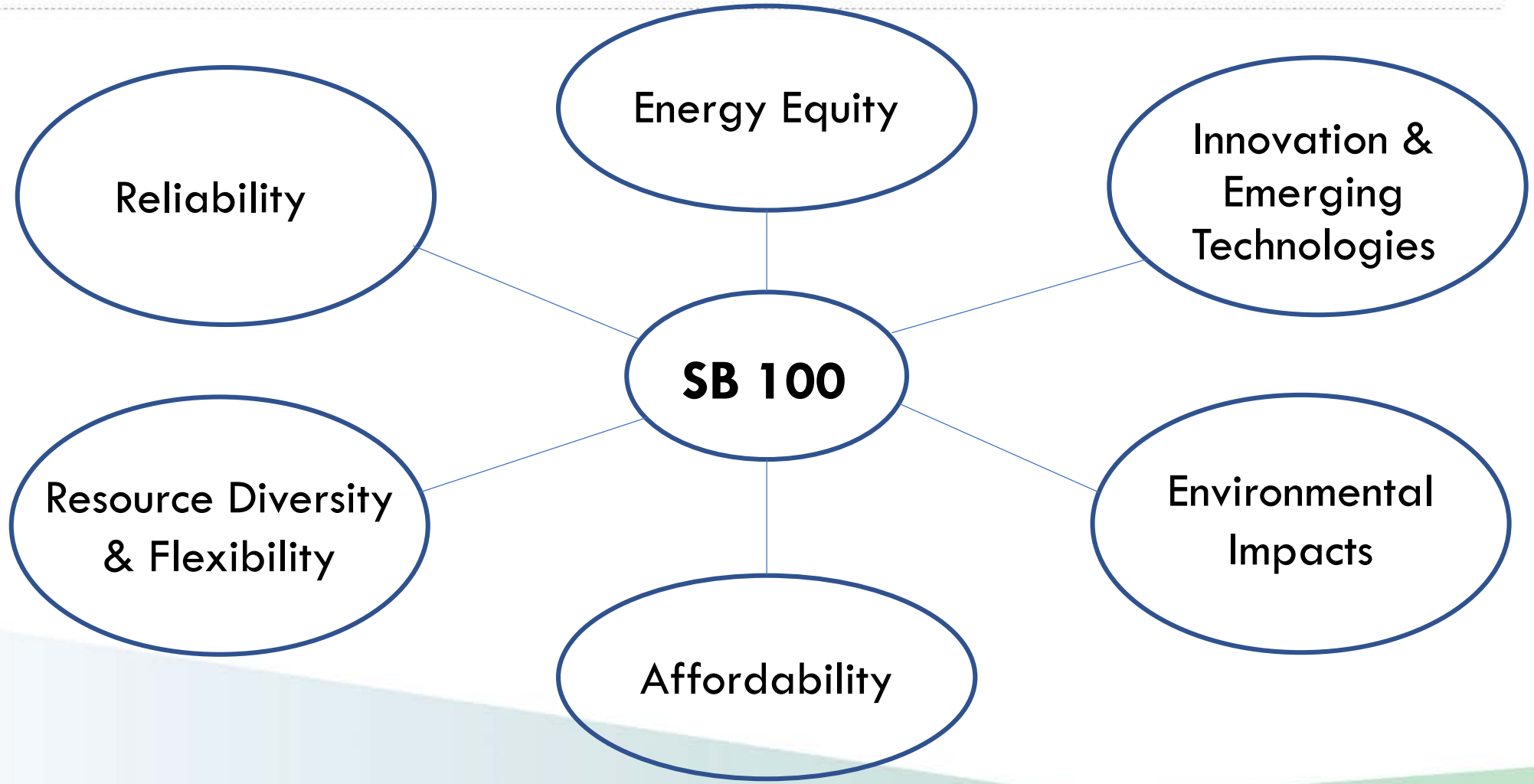
Provide direction to the electricity market

Coordinate planning processes of the State Agencies



Form consensus on interpretation of statute

Key Considerations



SB 100 Analysis

Quantitative

- Modeling of **statewide resource scenarios** to meet targets
- Evaluation framework for **costs, benefits and impacts**

Qualitative

- **Technology trends** & projections
- **System benefits:** reliability, resilience, health & safety
- **Energy equity & affordability**
- **Environmental implications, public safety and land use**
- Interactions with **other sectors**

SB100 Comments to date

- **Diverse portfolio** of resources; mix of in-state and regional resources and **energy storage**
- Specific technologies such as **large hydro, small modular nuclear, hydrogen, and bioenergy resources**
- Incorporate **resilience planning** and address wildfire risk, such as microgrids
- Continue to address **reliability**
- Critical importance of **affordability and energy equity**
- **Address air pollution**, particularly in disadvantaged communities

"Don't be prescriptive"

"Maximize optionality"

"Be technology inclusive"

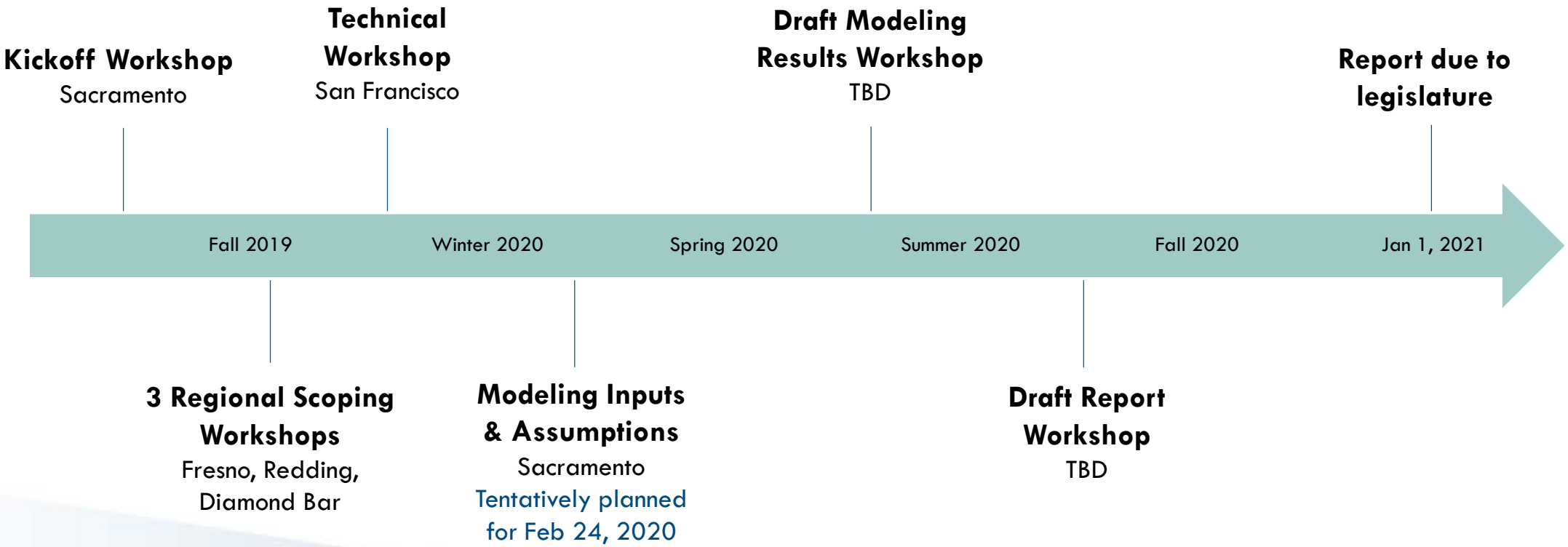
Option 1: "RPS+"

- Eligible resources types
  - Current Renewables Portfolio Standard (RPS)-eligible resource types
  - Large hydroelectric
  - Nuclear generation
  - Natural gas generation with CCS where GHG emissions=0
- Aligns with current RPS resource types and additional generation types that count as zero fossil emissions under the State's greenhouse gas inventory

Option 2: "No Combustion"

- Same as Option1 except would not allow for resources that combust fuel
- Examples of resources *not* allowed under this scenario
  - Biomass or biomethane combustion
  - Natural gas-fired generation with CCS where GHGs=0
  - Natural gas combusted at a (currently) RPS-eligible resource (e.g., solar-thermal facilities)
- Examples of resources allowed under this scenario
  - Biomethane reformation
  - Natural gas reformation with CCS where GHGs=0

Timeline


Kickoff Workshop
Sacramento
Technical Workshop
San Francisco
Draft Modeling Results Workshop
TBD
Report due to legislature
Fall 2019
Winter 2020
Spring 2020
Summer 2020
Fall 2020
Jan 1, 2021
3 Regional Scoping Workshops
Fresno, Redding, Diamond Bar
Modeling Inputs & Assumptions
Sacramento
Tentatively planned for Feb 24, 2020
Draft Report Workshop
TBD

SB 100 Engagement

- SB 100 Modeling Inputs & Assumptions Workshop, planned for February 24, 2020 at CEC
- Submit comments to CEC Docket 19-SB-100
- Visit the SB 100 Joint Agency Report webpage: https://www.energy.ca.gov/sb100

Questions/Discussion

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